

Watervliet Arsenal
West Magazine
(Building 129)
Worth Road southeast of the intersection
of Worth Road and Baker Road
Watervliet
Albany County
New York

HAER No. NY-1E

HAER
NY,
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20013-7127

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HISTORIC AMERICAN ENGINEERING RECORD

WATERVLIET ARSENAL
WEST MAGAZINE
(Building 129)
HAER No. NY-1E

Location: Worth Road southeast of the intersection of Worth Road and Baker Road, Watervliet Arsenal, Watervliet, Albany County, New York.
UTM: 18.605410.4730280
Quad: Troy South

Date of Construction: 1849

Present Owner and Occupant: U.S. Army

Present Use: Ammunition storage magazine

Significance: The building is a highly intact example of early ammunition magazine design and contributes to an understanding of the arsenal's early manufacturing and storage activities. It was modeled after the "East Magazine," the arsenal's oldest standing structure.

Historian: Barbara E. Hightower, February 1985

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Date of erection: In a November 9, 1848 letter, Major Rufus L. Baker referred to the tract of land on which the magazine was to be constructed during the next year (Kyle, p. 148). An inspection report from June 1849 notes that the magazine was about to be built on the site. The date 1849 is also carved into the lintel above the door.
2. Architect: The structure was apparently modeled after the "east magazine" (Building 119, HAER No. NY-1D) built at Watervliet in 1828. The architect of the earlier building is not known, but it was probably designed by Ordnance Department personnel.
3. Original and subsequent owners: U.S. Army
4. Builder, contractor, suppliers: Not known.
5. Original plans and construction: No original plans or drawings were located. Both the "west magazine" and its predecessor were described in a May 27, 1859 letter written to the Ordnance Department by Major Alfred Mordecai, the arsenal's commander:

There are two magazines at this Arsenal, both of the same size and construction; being 95 ft. long and 26 ft. wide in the clear; the groined arches are 9 1/2 ft. high supported by 6 piers, 2 ft. sq. and 6 ft. high above the floor. The cubic contents of each of these magazines measure 21,420 ft. of vacant space; there is a door in the middle of one side and two windows at each end. (Kyle, p. 195)

A photograph of the east and south elevations (HAER Photo No. NY-1E-6) taken about 1875 documents the building's exterior appearance at that time.

6. Alterations and additions: With the exception of a loading platform added in 1918 (Kyle, p. 631), the building remains virtually unaltered.

B. Historical Context:

In the spring of 1848, the arsenal's commander, Major Rufus L. Baker, wrote the Ordnance Department about plans for construction of a new magazine "intended chiefly for fixed ammunition of which we must always have a supply." The need was considered imperative since a

small ammunition magazine (now demolished), constructed several years earlier, was "so near the new quarters that in the event of a fire it might be blown up and destroy the Arsenal, quarters, and everything within its reach" (Kyle, p. 147). The site chosen for the new magazine was separated from the remainder of the arsenal to the east by a hill. The structure was erected on the site the following year apparently according to plans for the "east magazine." It appears to have been used for the storage of ammunition since its construction. (For further documentation see HAER No. NY-1A.)

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: Constructed of massive stone walls, the austere design of this hip-roofed structure is relieved by the prominent stone quoins at the corners and quoin surround at the east door. Its interior is divided longitudinally by a row of brick columns supporting a groin vaulted ceiling.
2. Condition of fabric: The building is in good condition and is well maintained.

B. Description of Exterior:

1. Over-all dimensions: This rectangular, one-story structure measures 105' 4" (front) x 35' 9".
2. Foundations: Foundation walls are massive stone. Masonry footings support the brick columns at the center of the building. The water table is hammered limestone.
3. Walls: Walls on the east, north, and south sides are coursed ashlar limestone, and the west wall is random coursed ashlar limestone. The corners of the building are accented with dressed limestone quoins.
4. Structural system, framing: Walls are load bearing, approximately 5 feet thick on the east, 4 feet on the west, and 3 to 3 1/2 feet on the north and south. A row of eight massive brick columns (the north and south columns are engaged) at the center of the building support the brick groin vaulted ceiling (HAER Photo No. NY-1E-5). The roof truss, which is not accessible to view, is heavy timber.

5. Loading platform: An open concrete platform stretches approximately two-thirds the length of the building on the east side.
6. Openings:
 - a. Doorways and doors: The only entrance, a massive metal-clad wood door with iron strap hinges, is centered on the east side (HAER Photo No. NY-1E-3 and HAER Photo No. NY-1E-4). The quoin surround is hammered limestone. The date 1849 is inscribed on the lintel above the door.
 - b. Windows: Two small window openings with flat limestone surrounds are placed high on the north and south walls. All four are covered with strap-hinged, copper-clad, wood doors.
7. Roof:
 - a. Shape, covering: The roof is a slate hip with copper flashing.
 - b. Cornice, eaves: A limestone cornice encircles the building below broad overhanging boxed eaves and metal soffit.

C. Description of Interior:

1. Floor plan: The interior has an open plan broken only by the longitudinal row of brick columns.
2. Flooring: The floor is random-width boards.
3. Wall and ceiling finish: Walls to the height of the springing line are covered with wainscoting of horizontal beaded boards. The columns are covered to the same height with wood paneling. Walls above the springing line and the ceiling are painted brick.
4. Openings:
 - a. Doorways and doors: The inner door at the east entrance is metal-covered wood.
 - b. Windows: Openings are covered with diagonal board doors attached with iron strap hinges.
5. Mechanical equipment:
 - a. Heating, air conditioning, ventilation: The building is not heated or cooled. Ventilation is provided by horizontal

passages cut through the stone walls about midway between the water table and cornice and through the foundation walls below the water table.

- b. Lighting: The interior is lighted by two rows of incandescent ceiling fixtures.

D. Site:

Located southeast of the intersection of Baker and Worth Roads, the building faces east. It originally occupied an isolated position near the western edge of the arsenal and was enclosed by a wood fence (HAER Photo No. NY-1E-6). The fence is no longer standing, and the structure is now surrounded by a large warehouse (Building 130) on the north, rail lines to the east and south, and a parking lot to the west.

PART III. SOURCES OF INFORMATION

A. Early Views:

South and east elevations of the magazine in its original isolated position near the arsenal's western boundary. Dated May 5, 1875. Watervliet Arsenal Museum. (HAER Photo No. NY-1E-6)

B. Bibliography:

1. Primary and unpublished sources:

Inspection Report, June 7, 1849. Entry 1003, Record Group 92, Records of the Office of the Chief of Ordnance. Navy and Old Army Branch, National Archives, Washington, D.C.

2. Secondary and published sources:

Building Technology, Inc. Historic Properties Report Watervliet Arsenal, Watervliet, New York and Rotterdam Family Housing Area, Rotterdam, New York. January 1985. The report and inventory cards for the arsenal are filed as field records in the Prints and Photographs Division, Library of Congress under HAER No. NY-1A.

Kyle, Francis K. A History of Watervliet Arsenal. Watervliet, New York: Watervliet Arsenal, 1920. Quotes contemporary correspondence on construction, descriptions, alterations, and contents of building. Copy available in the Watervliet Arsenal Museum.

C. Likely Sources Not Yet Investigated:

Records of the Office of the Chief of Ordnance, Record Group 156, and Records of the Office of the Chief of Engineers, Record Group 77, Navy and Old Army Branch, National Archives, Washington, D.C. should be investigated further.

D. Supplemental Material:

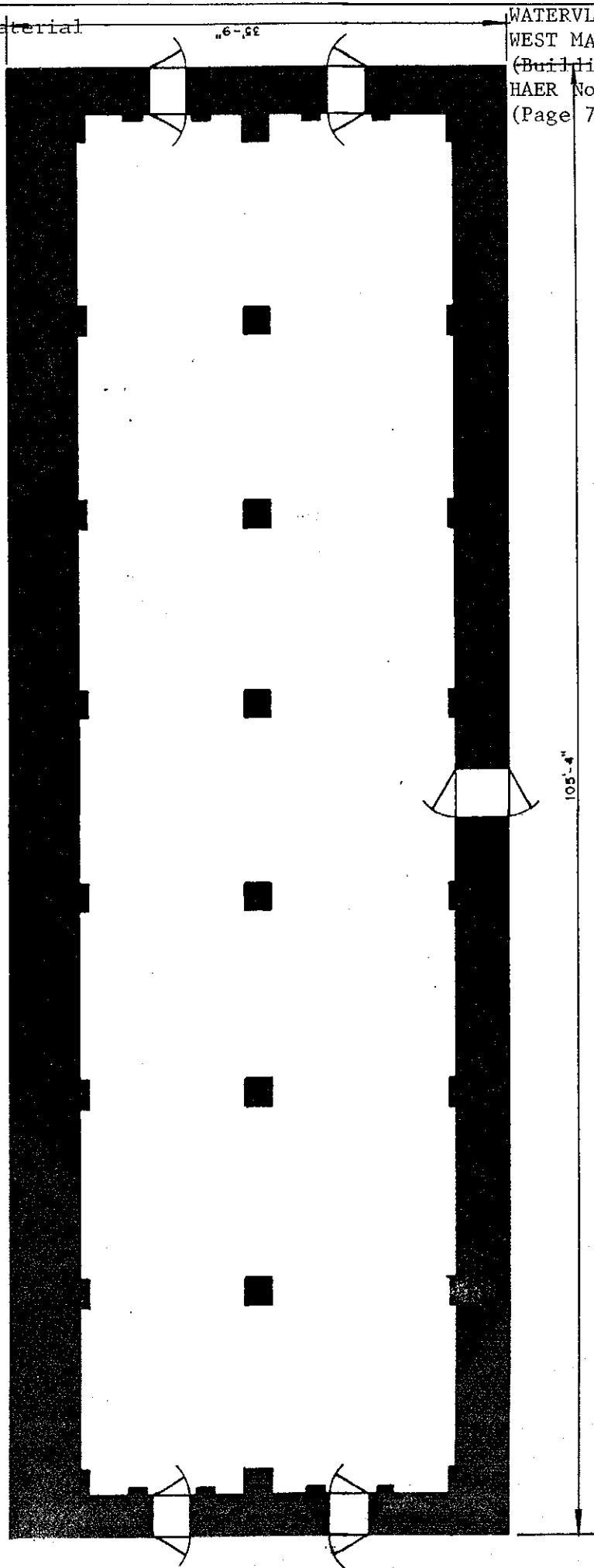
West Magazine, Building 129. No date. Watervliet Arsenal Engineering Division. Current floor plan of the building.

Prepared by: Barbara E. Hightower
Historian
MacDonald and Mack Partnership
February 1985

PART IV. PROJECT INFORMATION

This project was part of a program initiated through a memorandum of agreement between the National Park Service and the U.S. Department of the Army. Stanley H. Fried, Chief, Real Estate Branch of Headquarters DARCOM, and Dr. Robert J. Kapsch, Chief of the Historic American Buildings Survey/Historic American Engineering Record, were program directors. Sally Kress Tompkins of HABS/HAER was program manager, and Robie S. Lange of HABS/HAER was project manager. Under the direction of William A. Brenner, Building Technology Incorporated, Silver Spring, Maryland, acted as primary contractor, and MacDonald and Mack Partnership, Minneapolis, was a major subcontractor. The project included a survey of historic properties at Watervliet Arsenal, as well as preparation of an historic properties report and HABS/HAER documentation for 17 buildings. The survey, report, and documentation were completed by Barbara E. Hightower, historian, Minneapolis. The photographs were taken by Robert A. Ryan and J. Ceronie of Dennett, Muessig, Ryan, and Associates, Ltd., Iowa City, Iowa. Drawings were produced by Gary M. Louris, Minneapolis.

E. Supplemental Material
Floor Plan



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WATERVLIET ARSENAL

WATERVLIET, NY

Drawn by: J.R.GANGEMI, A.E. App'd by: *J.R. Gangemi*
Revisions: _____ Date: _____

WEST
MAGAZINE
BUILDING NO. 129



NET FLOOR AREA
3765
Square feet
FLOOR CAPACITY
500 LBS.
Per Square Foot